

**REMARKS**

Applicants respectfully acknowledge receipt of the Final Office Action mailed August 27, 2007.

In the Final Office Action, the Examiner objected to the drawings; objected to the specification; objected to claims 1 and 10; rejected claims 17-19 and 20-23 under 35 U.S.C. § 112, first paragraph; rejected claims 15 and 16 under 35 U.S.C. § 102(b) as being anticipated by *Roberts et al.* (U.S. Patent No. 6,335,548); rejected claims 17-23 under 35 U.S.C. § 102(e) as being anticipated by *Hsu* (U.S. Patent Pub. No. 2004/0000727); and rejected claims 1-4, 6, and 9-14 under 35 U.S.C. § 103(a) as being unpatentable over *Hoshiba* (U.S. Design Patent No. D505,396) in view of *Shaddock* (U.S. Patent Pub. No. 2002/0163001), *Ishinaga* (U.S. Patent No. 6,355,946), *Maruyama* (U.S. Patent No. 6,483,623), *Waitl et al.* (U.S. Patent No. 6,624,491), and *Seeger et al.* (U.S. Design Patent No. Des. 432,095).

By this Amendment, Applicants amend claims 1, 10, 17, and 20. Upon entry of this amendment, claims 1-4, 6, and 9-23 will remain pending in this application. Of these claims, claims 1 and 10 are independent.

The originally-filed specification, claims, abstract, and drawings fully support the amendments to claims 1, 10, 17, and 20. No new matter has been introduced.

Applicants traverse the objections and rejections above and respectfully request reconsideration for at least the reasons that follow.

## **I. OBJECTION TO THE DRAWINGS**

The drawings stand objected to under 37 C.F.R. § 1.83(a). Specifically, the Examiner alleges that “[the drawings] do not show the base protruding from a middle portion.” (*Final Office Action*, p. 3, para. 5). Although Applicants disagree with the Examiner’s assertion, Applicants have amended claim 1, and similarly claim 10, to recite, *inter alia*, “wherein the base emanates from an internal middle portion and protrudes from a bottom surface and two other side surfaces of the housing.” Applicants submit that the limitation, as amended, is illustrated and supported by Figures 1-6. Accordingly, Applicants respectfully request that the objection to the drawings be withdrawn.

## **II. OBJECTION TO THE SPECIFICATION**

The specification, specifically the specification filed with the Amendment on May 11, 2006, stands objected to under 35 U.S.C. § 132(a) because it allegedly introduces new matter into the disclosure. The Examiner asserts that “on page 4[,] 1<sup>st</sup> paragraph[,] applicant entered ‘preferably a metal frame.’ This is new matter since metal frame did not appear in the specification dated 1/29/2004[,] the date which the claims [were] submitted.” (*Final Office Action*, p. 4, para. 6). Applicants respectfully disagree.

Applicants submit that the “preferably a metal frame” language added to the specification on page 4, line 4, in the Amendment filed on May 11, 2006, is supported by the originally disclosed “electrically conductive material” language. A person of ordinary skill in the art would appreciate that a “metal frame” is an electrically conductive type of material. Accordingly, Applicants respectfully request that the objection to the specification be withdrawn.

### **III. OBJECTIONS TO THE CLAIMS**

Claims 1 and 10 stand objected to because of a few informalities. The Examiner's objections to claims 1 and 10 have been rendered moot by the amendments to claims 1 and 10. Applicants therefore request that the objections to claims 1 and 10 be withdrawn.

### **IV. 35 U.S.C. §112, FIRST PARAGRAPH, REJECTION**

Claims 17-19 and 20-23 stand rejected under 35 U.S.C. §112, first paragraph, as failing to comply with the written description requirement. The Examiner's rejection of claims 17-19 and 20-23 has been rendered moot by the amendments to claims 17 and 20. Applicants therefore request that the rejection of claims 17-19 and 20-23 under 35 U.S.C. § 112, first paragraph, be withdrawn.

### **V. 35 U.S.C. § 102 REJECTIONS**

Claims 15 and 16 stand rejected under 35 U.S.C. § 102(b) as being anticipated by *Roberts*. Applicants submit that the Examiner has incorrectly rejected the claims. Since claims 15 and 16 depend from independent claim 1, claim 1 must first be rejected under 35 U.S.C. § 102(b) in order for the rejection of dependent claims 15 and 16 to be proper. Assuming the Examiner intended to reject claims 1, 15, and 16 under 35 U.S.C. § 102(b) as being anticipated by *Roberts*, Applicants respectfully disagree with the Examiner's arguments and conclusions and submit that independent claim 1 is patentably distinguishable over *Roberts* at least for the reasons set forth below.

In order to properly establish that *Roberts* anticipates Applicants' claimed invention under 35 U.S.C. § 102, each and every element of each of the claims in issue must be disclosed, either expressly described or under principles of inherency, in that

single reference. Furthermore, “[t]he identical invention must be shown in as complete detail as is contained in the ... claim.” See M.P.E.P. § 2131, quoting *Richardson v. Suzuki Motor Co.*, 868 F.2d 1126, 1236, 9 U.S.P.Q.2d 1913, 1920 (Fed. Cir. 1989).

*Roberts* appears to disclose a semiconductor optical radiation package 200 including a leadframe 201, at least one semiconductor optical radiation emitter 202, and an encapsulant 203. (*Roberts*, col. 9, ll. 1-6). As illustrated in FIGs. 3 and 4, the encapsulant 203 is integrated within the leadframe 201.

*Roberts*, however, fails to disclose wherein a base emanates from an internal middle portion and protrudes from a bottom surface and two other side surfaces of a housing (emphasis added). The leadframe 201 does not protrude from a bottom surface of the encapsulant 203.

Accordingly, with respect to independent claim 1, *Roberts* fails to teach or suggest the claimed combination, including, *inter alia*:

“wherein the base emanates from an internal middle portion and protrudes from a bottom surface and two other side surfaces of the housing, the bottom surface and the two other side surfaces of the housing providing external mounting connection terminals” (emphasis added).

The Examiner has therefore not met the essential criteria for showing anticipation, wherein “each and every element of each of the claims in issue must be found, either expressly described or under principles of inherency, in...a...single reference.” See M.P.E.P. § 2131. Accordingly, independent claim 1 is patentable over *Roberts*. Applicants therefore request that the rejection of claim 1 under 35 U.S.C. § 102(b) be withdrawn and claim 1 be allowed.

Moreover, claims 15 and 16 are in condition for allowance at least due to their dependence from independent claim 1. In addition, at least some of the dependent claims may recite unique combinations that are neither disclosed nor suggested by the cited art, and therefore some also are separately patentable.

Claims 17-23 stand rejected under 35 U.S.C. § 102(e) as being anticipated by *Hsu*. Applicants submit that the Examiner has incorrectly rejected the claims. Since claims 17-23 correspondingly depend from independent claims 1 and 10, claims 1 and 10 must first be rejected under 35 U.S.C. § 102(e) in order for the rejection of dependent claims 17-23 to be proper. Assuming the Examiner intended to reject claims 1, 10, and 17-23 under 35 U.S.C. § 102(e) as being anticipated by *Hsu*, Applicants respectfully disagree with the Examiner's arguments and conclusions and submit that independent claims 1 and 10 are patentably distinguishable over *Hsu* at least for the reasons set forth below.

As noted above, in order to properly establish that *Hsu* anticipates Applicants' claimed invention under 35 U.S.C. § 102, each and every element of each of the claims in issue must be disclosed, either expressly described or under principles of inherency, in that single reference. Furthermore, "[t]he identical invention must be shown in as complete detail as is contained in the ... claim." See M.P.E.P. § 2131, quoting *Richardson v. Suzuki Motor Co.*, 868 F.2d 1126, 1236, 9 U.S.P.Q.2d 1913, 1920 (Fed. Cir. 1989).

*Hsu* appears to disclose a light emitting diode (LED) package 60 including a first terminal 70, a second terminal 80, an LED die 20, a conductive wire 40, an encapsulant

50, and a base 51 of the encapsulant 50. The first terminal 70 is formed by a main plate 16 and includes extending arm 18. The second terminal 80, which is a separate arm 19, is located at a left side of the first terminal 70. (*Hsu*, paragraph [0025] and FIG. 12).

*Hsu*, however, fails to disclose wherein a base emanates from an internal middle portion and protrudes from a bottom surface and two other side surfaces of a housing (emphases added). The extending arm 18 and the separate arm 19 do not protrude out of the base 51 and the LED package 60 (emphasis added). The extending arm 18 and the separate arm 19 are level and even with the side surfaces of the base 51.

Accordingly, with respect to independent claim 1, and similarly independent claim 10, *Hsu* fails to teach or suggest the claimed combination, including, *inter alia*:

“wherein the base emanates from an internal middle portion and protrudes from a bottom surface and two other side surfaces of the housing, the bottom surface and the two other side surfaces of the housing providing external mounting connection terminals” (emphases added).

The Examiner has therefore not met the essential criteria for showing anticipation, wherein “each and every element of each of the claims in issue must be found, either expressly described or under principles of inherency, in...a...single reference.” See M.P.E.P. § 2131. Accordingly, independent claims 1 and 10 are patentable over *Hsu*. Applicants therefore request that the rejection of claims 1 and 10 under 35 U.S.C. § 102(e) be withdrawn and claims 1 and 10 be allowed.

Moreover, claims 17-23 are in condition for allowance at least due to their corresponding dependence from independent claims 1 and 10. In addition, at least some of the dependent claims may recite unique combinations that are neither

disclosed nor suggested by the cited art, and therefore some also are separately patentable.

## VI. 35 U.S.C. § 103 REJECTION

Applicants traverse the Examiner's rejection of claims 1-4, 6, and 9-14 under 35 U.S.C. § 103(a) as being unpatentable over *Hoshiba* in view of *Shaddock*, *Ishinaga*, *Maruyama*, *Waitl*, and *Seeger*. Applicants respectfully submit that amended independent claims 1 and 10 patentably distinguish over *Hoshiba*, *Shaddock*, *Ishinaga*, *Maruyama*, *Waitl*, and *Seeger* at least for the reasons described below.

In order to establish a *prima facie* case of obviousness under 35 U.S.C. §103(a), the prior art reference (separately or in combination) must teach or suggest all the claim limitations. See M.P.E.P. § 2142, 8th Ed., Rev. 5 (August 2006). "[I]n formulating a rejection under 35 U.S.C. § 103(a) based upon a combination of prior art elements, it remains necessary to identify the reason why a person of ordinary skill in the art would have combined the prior art elements in the manner claimed." *USPTO Memorandum* from Margaret A. Focarino, Deputy Commissioner for Patent Operations, May 3, 2007, p. 2. "[T]he analysis supporting a rejection ... should be made explicit" and it is "important to identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the [prior art] elements in the manner claimed." *Id.* (citing *KSR Int'l Co. v. Teleflex, Inc.*, No. 04-1350 (U.S. Apr. 30, 2007)).

*Hoshiba* appears to disclose a light emitting diode including an octagonal structure having a bottom and eight sides. On six of these sides are arranged six identical elements, referred to in the Final Office Action as "leads," that are bent to

“wrap around” from the side of the octagonal structure to the bottom. (*Hoshiba*, Figures 1-6).

As admitted by the Examiner, “*Hoshiba* does not explicitly say that the bent material is a lead frame...” (*Final Office Action*, p. 9, ll. 3-4). *Hoshiba* also fails to disclose wherein a base emanates from an internal middle portion of a housing (emphasis added). Rather, the “leads” merely appear to be attached to an outer surface of the octagonal structure. There is nothing to suggest that the leads emanate from an internal middle portion of the light emitting diode device. As illustrated in Figure 2 of Applicants’ application, for example, the base 1 emanates from an internal middle portion of the housing and protrudes from a bottom surface and two other side surfaces of the housing.

In order to cure the deficiencies of *Hoshiba*, the Examiner relies on *Shaddock*, *Ishinaga*, *Maruyama*, *Waitl*, and *Seeger* and alleges “in view of *Shaddock*, *Ishinaga*, *Maruyama*, *Waitl*, and *Seeger* one of ordinary skill in the art would have interpreted the bent material to be lead frame...” (*Final Office Action*, p. 9, ll. 4-6). *Shaddock*, *Ishinaga*, *Maruyama*, *Waitl*, and *Seeger*, however, fail to cure the above-noted deficiencies of *Hoshiba*.

Accordingly, with respect to independent claim 1, and similarly independent claim 10, *Hoshiba*, *Shaddock*, *Ishinaga*, *Maruyama*, *Waitl*, and *Seeger* fail to teach Applicants’ claimed combination, including, *inter alia*:

“wherein the base emanates from an internal middle portion and protrudes from a bottom surface and two other side surfaces of the housing, the bottom surface and the two other side surfaces of the housing providing external mounting connection terminals” (emphasis added).



For at least the foregoing reasons, a *prima facie* case of obviousness has not been established with respect to independent claims 1 and 10. Accordingly, independent claims 1 and 10, and claims 2-4, 6, 9, and 11-14 that correspondingly depend from claims 1 and 10, are patentable over *Hoshiba*, *Shaddock*, *Ishinaga*, *Maruyama*, *Waitl*, and *Seeger*. Applicants therefore request that the rejection of claims 1-4, 6, and 9-14 under 35 U.S.C. § 103(a) be withdrawn.

## **VII. CONCLUSION**

Applicants respectfully submit that independent claims 1 and 10 are in condition for allowance. In addition, claims 2-4, 6, 9, and 11-23 are in condition for allowance at least due to their corresponding dependence from independent claims 1 and 10.

The Office Action contains characterizations of the claims and the related art with which Applicants do not necessarily agree. Unless expressly noted otherwise, Applicants decline to subscribe to any statement or characterization in the Office Action.

In view of the foregoing amendments and remarks, Applicants respectfully request reconsideration and reexamination of this application and the timely allowance of the pending claims.

Please grant any extensions of time required to enter this response and charge any additional required fees to our deposit account 06-0916.

Respectfully submitted,

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